(a) isolating virus-specific T cells from the subject;
(b) expressing in the cells a dominant negative form of PD-1, wherein expression of the dominant negative form of PD-1 promotes production of virus-specific memory cells; and
(c) administering the cells to the subject.

155. A method of treating a viral infection in a subject in need thereof, comprising:
(a) isolating regulatory T cells from a subject having a chronic viral infection;
(b) expressing in the cells a dominant negative form of PD-1; and
(c) administering the cells to the subject.

156. The method of any one of claims **153-155**, wherein the subject is a human.

157. The method of claim **156**, wherein the viral infection is infection with a virus that is a human pathogen.

158. The method of any one of claims **153-157**, wherein the viral infection is infection with HIV, HBV, HCV, HSV, VZV, adenovirus, CMV or EBV.

159. The method of any one of claims **153**, **156** or **157**, wherein the viral infection is infection with HIV.

160. The method of any one of claims **154**, **156** or **157**, wherein the viral infection is infection with HBV.

161. The method of any one of claims **155-157**, wherein the viral infection is infection with HCV.

162. The method of any one of claims **139-161**, wherein the administering is by intrapleural administration, intravenous administration, subcutaneous administration, intranodal administration, intrahepatic administration, intrathecal administration, intraperitoneal administration, intracranial administration, or direct administration to the thymus.

163. The method of any one of claims **139-162**, wherein the cell is administered in a dose in the range of 10^4 to 10^{10} cells per kilogram of body weight.

164. The method of claim **163**, wherein the dose is in the range of 3×10^5 to 3×10^6 cells per kilogram of body weight.

165. The method of any one of claims **139-164**, wherein the cell or cell population is autologous to the subject.

166. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the cell or cell population of any one of claims **75-86**, wherein the viral antigen is an antigen associated with the viral infection.

167. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject the pharmaceutical composition of claim **133** or **134**, wherein the viral antigen is an antigen associated with the viral infection.

168. The method of claim **166** or **167**, wherein the subject is a human.

169. The method of claim **168**, wherein the viral infection is infection with a virus that is a human pathogen.

170. The method of any one of claims **166-169**, wherein the viral infection is infection with HIV, HBV, HCV, HSV, VZV, adenovirus, CMV or EBV.

171. The method of any one of claims **166-170**, wherein expression of the first dominant negative form promotes production in the subject of virus-specific memory cells.

172. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the cell or cell population of any one of claims **87-98**, wherein the viral antigen is an antigen associated with the viral infection.

173. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject the pharmaceutical composition of claim **135** or **136**, wherein the viral antigen is an antigen associated with the viral infection.

174. The method of claim **172** or **173**, wherein the subject is a human.

175. The method of claim **174**, wherein the viral infection is infection with a virus that is a human pathogen.

176. The method of any one of claims **172-175**, wherein the viral infection is infection with HIV, HBV, HCV, HSV, VZV, adenovirus, CMV or EBV.

177. The method of any one of claims **172-176**, wherein expression of the first dominant negative form promotes production in the subject of virus-specific memory cells.

178. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of:
(a) a first cell or first population of said first cell, wherein the first cell is an immunostimulatory cell and recombinantly expresses (i) a chimeric antigen receptor (CAR), wherein the CAR binds to a viral antigen and wherein the viral antigen is an antigen associated with the viral infection, and (ii) a dominant negative form of an inhibitor of a cell-mediated immune response of the immunostimulatory cell, wherein the dominant negative form lacks an intracellular signaling domain and is a polypeptide comprising (A) at least a portion of an extracellular domain of an immune checkpoint inhibitor, wherein the portion comprises the ligand binding region, and (B) a transmembrane domain; and
(b) a second cell or second population of said second cell, wherein the second cell is an immunostimulatory cell and recombinantly expresses (i) a chimeric antigen receptor (CAR), wherein the CAR binds to a viral antigen and wherein the viral antigen is an antigen associated with the viral infection, and (ii) a dominant negative form of an inhibitor of a cell-mediated immune response of the immunostimulatory cell, wherein the dominant negative form is a polypeptide comprising (A) at least a portion of an extracellular domain of an immune checkpoint inhibitor, wherein the portion comprises the ligand binding region, (B) a transmembrane domain, and (C) a co-stimulatory signaling domain, wherein the co-stimulatory signaling domain is carboxy-terminal to the transmembrane domain of the dominant negative form.

179. The method of claim **178**, wherein the subject is a human.

180. The method of claim **179**, wherein the viral infection is infection with a virus that is a human pathogen.

181. The method of any one of claims **178-180**, wherein the viral infection is infection with HIV, HBV, HCV, HSV, VZV, adenovirus, CMV or EBV.

182. A method of treating a viral infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of:
(a) a first cell or first population of said first cell, wherein the first cell is an immunoinhibitory cell and recombinantly expresses (i) a chimeric antigen receptor (CAR), wherein the CAR binds to a viral antigen and wherein the viral antigen is an antigen associated with the viral infection, and (ii) a dominant negative form of an inhibitor of a cell-mediated immune response of the